

## I. AMENDMENTS

### AMENDMENTS TO THE CLAIMS

Cancel claim 15 without prejudice to renewal.

Please enter new claims 27-29, as shown below.

1. (Previously presented) A recombinant Modified Vaccinia Vaccine Ankara (MVA) virus comprising at least one nucleic acid coding for at least one fragment of a *Plasmodium falciparum* merozoite surface protein-1 (MSP-1), wherein the at least one fragment of MSP-1 is selected from:

- i) p42;
- ii) p42 and p38; and
- iii) p83, p30, p42, and p38.

2. (Previously presented) The recombinant MVA virus according to Claim 1, wherein the MSP-1 protein is the MSP-1 protein of the isolate 3D7 or the MSP-1 protein of the FCB1 strain.

3.-5. (Cancelled)

6. (Previously presented) The recombinant MVA virus according to Claim 1, wherein the nucleic acid coding for the at least one fragment of MSP-1 is under the control of a promoter.

7. (Previously presented) The recombinant MVA virus according to Claim 1, wherein the nucleic acid at the 5' end is fused with a nucleotide sequence coding for a signal peptide sequence.

8. (Previously presented) The recombinant MVA virus according to Claim 7, wherein the signal peptide sequence controls the secretion of the at least one fragment of MSP-1.

9. (Previously presented) The recombinant MVA virus according to Claim 7, wherein the signal peptide sequence controls the localisation of the at least one fragment of MSP-1 to the membrane.

10. (Previously presented) The recombinant MVA virus according to Claim 7, wherein the signal sequence controls the glycosylphosphatidylinositol anchoring of the at least one fragment of MSP-1.

11. (Previously presented) A method of production of a recombinant Modified Vaccinia Vaccine Ankara (MVA)-based virus, wherein the method comprises the steps:

a) transfecting a eukaryotic host cell with a transfer vector, wherein the transfer vector comprises a nucleic acid encoding at least one fragment of *Plasmodium falciparum* merozoite surface protein-1 (MSP-1) protein, wherein the at least one fragment of MSP-1 is selected from:

- i) p42;
- ii) p42 and p38; and
- iii) p83, p30, p42, and p38,

wherein the nucleic acid is flanked by MVA sequences 5' and / or 3', wherein the sequences are suitable for the homologous recombination in the host cell;

- b) infecting the cell from step (a) with a virus based on MVA;
- c) cultivating the host cell under conditions suitable for homologous recombination; and
- d) isolating the recombinant MVA-based virus.

12. (Previously presented) The method according to Claim 11, wherein the recombinant virus is isolated from the culture supernatant or from the cultivated host cells.

13. (Previously presented) A vaccine comprising:

- a) the recombinant virus according to one of Claims 1, 2, and 6-9; and
- b) a pharmacologically compatible carrier.

14. (Previously presented) The vaccine according to Claim 13, further comprising: c) MSP-1, or a fragment thereof and / or a nucleic acid coding for MSP-1, or a fragment thereof.

15. **(Cancelled)**

16. (Previously presented) A method for the therapy of malaria, the method comprising administering the recombinant virus of any one of Claims 1, 2, and 6-9.

17. (Previously presented) A method for the therapy of malaria, the method comprising administering: i) a recombinant virus according to one of claims 1, 2, and 6-9; and ii) MSP-1, or a fragment and / or a nucleic acid coding for MSP-1, or a fragment thereof, wherein the fragment of MSP-1 is selected from the fragments p83, p30, p38, p33, p19, and p42, or a combination thereof.

18. (Previously presented) The method of claim 11, wherein the transfer vector comprises a selection marker.
19. (Cancelled)
20. (Previously presented) The vaccine of claim 13, wherein the vaccine does not comprise an adjuvant.
21. (Previously presented) The vaccine of claim 13, further comprising a recombinant MSP-1 protein.
22. (Previously presented) A vaccine composition comprising:
- a) a recombinant Modified Vaccinia Vaccine Ankara (MVA) virus comprising at least one nucleic acid coding for at least one fragment of a *Plasmodium falciparum* merozoite surface protein-1 (MSP-1) protein, , wherein the at least one fragment is selected from:
    - i) p42;
    - ii) p42 and p38; and
    - iii) p83, p30, p42, and p38; and
  - b) a pharmacologically compatible carrier.
- 23.-24. (Cancelled)
25. (Previously presented) The vaccine composition of claim 22, wherein the nucleic acid encoding the at least one MSP-1 fragment is reduced in its adenine and thymine (AT) content compared to the wild-type sequence.
26. (Previously presented) The recombinant MVA virus of claim 1, wherein the nucleic acid coding for the at least one fragment of MSP-1 is reduced in its adenine and thymine (AT) content compared to the wild type sequence.
27. **(New)** A vaccine kit comprising:
- a) the recombinant virus according to claim 1; and
  - b) a pharmacologically acceptable carrier

28. (New) The kit of claim 27, further comprising:

c) MSP-1, or a fragment thereof and / or a nucleic acid coding for MSP-1, or a fragment thereof.

29. (New) The kit of claim 28, wherein components (a) and (c) are suitable for simultaneous, sequential or separate administration.